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An update checklist of the Saturniidae of Ecuador. Part II: Arsenurinae, Ceratocampinae, Saturniinae
(Lepidoptera: Saturniidae)

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An update checklist of the Saturniidae of Ecuador. Part II: Arsenurinae, Ceratocampinae, Saturniinae (Lepidoptera: Saturniidae)

L. Racheli & T. Racheli

Abstract

In this paper, the second part of an update checklist of the Saturniidae of Ecuador is given. A total of 122 taxa belonging to the subfamilies Arsenurinae, Ceratocampinae and Saturniinae are recorded for this country. All the available distributional data in the literature was reviewed, and additional records from material examined in private and public collections have been included. All the provincial records are listed for each taxon. For some uncommon or little-known species, further details on their distribution are given. The current taxonomic arrangements of some species-groups are discussed.

KEY WORDS: Lepidoptera, Saturniidae, Arsenurinae, Ceratocampinae, Saturniinae, checklist, Ecuador.

Una lista actualizada de los Saturniidae del Ecuador. Parte II: Arsenurinae, Ceratocampinae, Saturniinae (Lepidoptera: Saturniidae)

Resumen

En este trabajo, se da la segunda parte de una lista comprobada de los Saturniidae del Ecuador. Se registra para este país un total de 122 taxa pertenecientes a las subfamilias Arsenurinae, Ceratocampinae y Saturniinae. Se repasan todos los datos disponibles en la literatura sobre su distribución y se incluyen todas las citas adicionales examinadas en colecciones públicas y privadas. Para cada taxón se enumeran todas las citas provinciales conocidas. Para algunas especies raras o poco conocidas, se dan datos sobre su distribución. Se discuten nuevas combinaciones taxonómicas para algunos grupos de especies.

PALABRAS CLAVE: Lepidoptera, Saturniidae, Arsenurinae, Ceratocampinae, Saturniinae, lista, Ecuador.

Introduction

This paper deals with the second part of the checklist of the Saturniidae of Ecuador (for the first part see RACHELI & RACHELI, 2005a). All the taxa belonging to the subfamilies Arsenurinae, Ceratocampinae and Saturniinae recorded for this country are listed. All the available records based on specimens examined in public and private collections or gathered from literature have been used to compile the present inventory.

The species of Arsenurinae, Ceratocampinae and Saturniinae are listed according to the arrangement proposed by LEMAIRE (1996). Although the recognition of the subspecies and the arrangement based on a Biological Species Concept framework are unsatisfactory, they are used according to the arguments given in the first part (see RACHELI & RACHELI, 2005a: 204).

Although the Ecuadorian species belonging to these subfamilies are well known if compared with those belonging to the subfamily Hemileucinae treated in the first part (RACHELI & RACHELI, 2005a), only a few controversial information is available for various taxa. For example, information regarding some species such as *Arsenura (batesii) aurantiaca* Lemaire, 1980, *Parademonia ruschii* May

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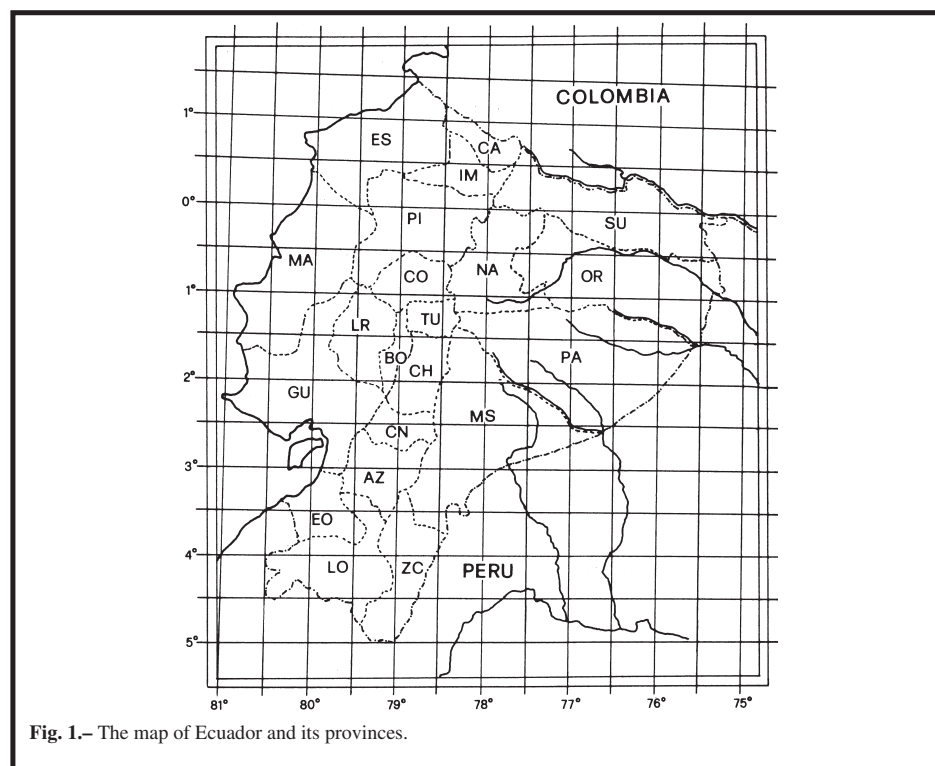
& Oiticica, 1943, *Bathyphebia johnsoni* Oiticica & Michener, 1950 or *Rachesa adusta* (Rothschild, 1907) remains still scanty. In some of these cases and in other discussed below, the available information is based on a single specimen or a few only. The most important accounts for these four species are those included in the revisions of these subfamilies by LEMAIRE (1980, 1988) with some additional data given in the catalogue of the Ecuadorian Saturniidae by LEMAIRE & VENEDICTOFF (1989). More recently, further information on the distribution of these species have been reported by RACHELI (1994, 1997) and PIÑAS & MANZANO (2003).

The aim of the present checklist remains to update the information regarding the species belonging to these subfamilies after the publication of the catalogue by LEMAIRE & VENEDICTOFF (1989). Some problematic issues regarding the identification of some specimens and the need of revisional notes for some species-groups such as *Eacles ormondei* and *Rothschildia orizaba* are debated.

Abbreviations and format for species account

The following abbreviations are used for the provinces of Ecuador (fig. 1): Carchi (CA); Imbabura (IM); Esmeraldas (ES); Sucumbíos (SU); Orellana (OR); Pichincha (PI); Napo (NA); Cotopaxi (CO); Manabí (MA); Los Ríos (LR); Bolívar (BO); Chimborazo (CH); Tungurahua (TU); Pastaza (PA); Guayas (GU); Cañar (CN); Morona-Santiago (MS); Azuay (AZ); El Oro (EO); Loja (LO); Zamora Chinchipe (ZC). The following abbreviations are used for the institutions: MNHN = Muséum National d'Histoire Naturelle, Paris, France; MZR = Museo Civico di Zoologia, Rome, Italy.

Each record under "Distribution" refers to the provincial record for each listed taxon. The symbol "?" refers to doubtful records based on old and/or unverified records.



AN UPDATE CHECKLIST OF THE SATURNIIDAE OF ECUADOR

Arsenurinae

Genus *Arsenura* Duncan, 1841*Arsenura armida* (Cramer, 1779)

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Arsenura archianassa archianassa Draudt, 1930

Distribution: Imbabura, Pichincha, Cotopaxi, Cañar, ?Los Ríos.

Arsenura archianassa porioni Lemaire, 1980

Distribution: Manabí, ?Los Ríos, ?Cañar.

Remarks: After the examination of the paratype series examined in MNHN, the validity of *porioni* becomes doubtful. Indeed the smaller size and the ground colour variation of the typical series are doubtful characters in the identification of this subspecies given the variability of *archianassa*. It seems that *porioni* is only a synonym of *archianassa* but no taxonomic change is proposed here. The status of this taxon will be discussed in detail elsewhere.

Other than the typical series from Manabí province (see LEMAIRE, 1980), the record from Los Ríos is based on a single female reported by RACHELI (1994). Some doubts remain on the identification of this female which probably should be assigned to *archianassa*. Regarding the presence of this species in Cañar province, this is based on the record given by LEMAIRE & VENEDICTOFF (1989). In any case, all the specimens examined from this latter province are assigned here to *archianassa*.

Arsenura mossi Jordan, 1922

Distribution: Sucumbíos, Napo, Pastaza, Morona-Santiago.

Remarks: this is an uncommon species which may be misidentified with the common *A. armida*. Usually, *A. mossi* is larger than *A. armida* (there are also specimens of reduced size) but it shows always a light brown ground colour. Although it has been recorded for four eastern provinces, only few Ecuadorian specimens are known. Its presence in both Orellana and Zamora Chinchipe provinces at low elevations is expected.

Arsenura ciocolatina Draudt, 1930

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago, Zamora Chinchipe.

Arsenura albopicta Jordan, 1922

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Arsenura rebeli Gschwandner, 1920

Distribution: Napo, Tungurahua, Morona-Santiago, Zamora Chinchipe.

Arsenura sylla (Cramer, 1779)

Distribution: Sucumbíos, Orellana, Pastaza.

Remarks: it is a very scarce species recorded only for three sites located in the provinces listed above. These records refer to those reported by LEMAIRE & VENEDICTOFF (1989), RACHELI (1998) and PIÑAS & RACHELI (1998).

The record from Sucumbíos province reported by LEMAIRE & VENEDICTOFF (1989) is based on a single male collected by R. de Lafebre. This male specimen has been examined in the collection of C. Lemaire (now in MNHN). As pointed out elsewhere (RACHELI & RACHELI, 2001; RACHELI, in press), some doubts about the provenience of the material collected or handled by this collector have been raised.

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Arsenura thomsoni lemairei Racheli & Racheli, 1998

Distribution: Sucumbíos, Orellana.

Remarks: In describing this taxon, RACHELI & RACHELI (1998) included in the type material a single male from Ecuador (Orellana province). A previous record was that reported by LEMAIRE & VENEDICTOFF (1989). According to RACHELI (2004), the most recent Ecuadorian record for this species is based on a misidentified male specimen of *A. sylla* figured by PIÑAS & MANZANO (2003).

Arsenura batesii batesii (Felder & Rogenhofer, 1874)

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Morona-Santiago.

Arsenura batesii arcae Druce, 1886

Distribution: Esmeraldas, Pichincha, Cañar.

Arsenura batesii aurantiaca Lemaire, 1976

Distribution: Los Ríos.

Remarks: Very few specimens of this taxon are known. It seems that only three male specimens are known namely from the type locality Río Bamba (which is a misspelling of Río Baba [LR] according to LEMAIRE & VENEDICTOFF, [1989: 53]), from Macas (MS), and from a site 2 km E of Quevedo (LR) (LEMAIRE, 1980; RACHELI, 1994). In contrast to LEMAIRE (1980), the record from Macas (MS) is perhaps based on an erroneous label, and for this reason it was not listed by LEMAIRE & VENEDICTOFF (1989). The range of this species is unknown but it seems restricted to western Ecuador. Furthermore, the most recent record from Los Ríos province gives further support to the explanation by LEMAIRE & VENEDICTOFF (1989) about the provenience of the holotype. Finally, it must be pointed out that large areas in the province of Los Ríos have been deforested and cultivated. Then, it could be an explanation about the rarity of this taxon.

Arsenura ponderosa Rothschild, 1895

Distribution: Sucumbíos, Orellana, Morona-Santiago.

Arsenura cytonia (Rothschild, 1907)

Distribution: Napo, Tungurahua, Morona-Santiago, Zamora Chinchipe.

Genus *Caio* Travassos & Noronha, 1968*Caio championi* (Druce, 1886)

Distribution: Esmeraldas, Cañar.

Caio harrietae (Forbes, 1944)

Distribution: Manabí, Guayas.

Genus *Dysdaemonia* Hübner, [1819]*Dysdaemonia boreas* (Cramer, 1775)

Distribution: Esmeraldas, Pichincha, Bolívar, Sucumbíos, Orellana, Napo, Tungurahua, Morona-Santiago.

Genus *Titaea* Hübner, [1823]*Titaea tamerlan amazonensis* Lemaire, 1980

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

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Titaeta tamerlan nobilis (Schaus, 1912)

Distribution: Esmeraldas, Imbabura, Pichincha, Cañar, El Oro.

Titaeta tamerlan guayaquila (Schaus, 1932)

Distribution: Manabí, Guayas.

Titaeta lemoulti (Schaus, 1905)

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Titaeta timur (Fassl, 1915)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Genus *Rhescyntis* Hübner, [1819]

Rhescyntis hippodamia hippodamia (Cramer, 1777)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago, Zamora Chinchipe.

Rhescyntis hippodamia colombiana Bouvier, 1927

Distribution: Pichincha, Cañar, Los Ríos.

Rhescyntis hermes (Rothschild, 1907)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Rhescyntis descimoni Lemaire, 1975

Distribution: Sucumbíos, Napo, Morona-Santiago.

Genus *Parademonia* Bouvier, 1925

Parademonia platydesmia (Rothschild, 1907)

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Morona-Santiago.

Parademonia ruschii May & Oiticica, 1943

Distribution: Orellana, Morona-Santiago.

Parademonia samba (Schaus, 1906)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Remarks: The presence of this species in the province of Sucumbíos is based on a single male labelled "Ecuador, Oriente, Napo, Lumbaqui, Station Texaco, 850 m, VIII-1978, R. de Lafabre [leg.]", examined in the collection of C. Lemaire (in MNHN). In any case, there are no doubts about the presence of this species in all the provinces of eastern Ecuador at low elevations.

Parademonia nycteris (Jordan, 1922)

Distribution: Orellana, Pastaza, Morona-Santiago.

Genus *Copiopteryx* Duncan, 1841

Copiopteryx semiramis semiramis (Cramer, 1775)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Copiopteryx semiramis andensis (Lemaire, 1974)

Distribution: Pichincha, Manabí, Cañar, Los Ríos, El Oro.

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Copiopteryx jehovah (Strecker, 1874)

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Morona-Santiago.

Genus *Loxolomia* Maassen, 1869*Loxolomia johnsoni* Schaus, 1932

Distribution: Morona-Santiago.

Remarks: this species is known on the basis of a single record reported by LEMAIRE & VENEDICTOFF (1989) for Sangay (MS). No other Ecuadorian specimens are known.

Genus *Grammopelta* Rothschild, 1907*Grammopelta lineata* (Schaus, 1906)

Distribution: Esmeraldas, Imbabura, Pichincha, Sucumbíos, Napo.

Ceratocampinae

Genus *Eacles* Hübner, [1819]*Eacles imperialis cacicus* (Drury, 1773)

Distribution: Sucumbíos, Orellana, Napo, Tungurahua, Morona-Santiago.

Eacles imperialis anchicayensis Lemaire, 1971

Distribution: Esmeraldas, Pichincha, Manabí.

Eacles guianensis Schaus, 1905

Distribution: Sucumbíos, Orellana.

Eacles barnesi Schaus, 1905

Distribution: Sucumbíos, Orellana.

Eacles penelope (Cramer, 1775)

Distribution: Esmeraldas, Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Remarks: Although it is a very common species in eastern provinces, it was not recorded for western Ecuador (see LEMAIRE & VENEDICTOFF, 1989: 53, note 4) until the recent record reported by PIÑAS & MANZANO (2003). A male specimen labelled "Ecuador, S. Domingo de los Colorados [PI], XII-1981, coll. P. Butti", has been examined in MZR. Regarding this latter record, there are some doubts. Indeed, this site has been investigated several times by N. Venedictoff and other collectors but this species was never recorded there. Given that there is no information about the collector of this specimen, it is impossible to confirm or to disconfirm this record.

Eacles masoni tyrannus Draudt, 1930

Distribution: Pichincha, Manabí, Cañar.

Eacles masoni fulvaster Rothschild, 1907

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Remarks: Eight male specimens collected in the altitudinal belt (1000-1200 m) in Napo province have a paler ground colour if compared with that of *fulvaster* from low elevations. Although it could only be an altitudinal variation, further studies are needed to explain some possible differences among specimens from moderate and lowland elevations.

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Eacles callopteris Rothschild, 1907

Distribution: Sucumbíos, Napo, Morona-Santiago, Zamora Chinchipe.

Eacles ormondei niepelti Draudt, 1930

Distribution: Pichincha, Cotopaxi, Cañar.

Remarks: A preliminary analysis of the few specimens collected at moderate elevation raised the possibility that two different species are involved within *niepelti*. The specimens of moderate elevation (above 1400 m) seem to be different from those of low elevations. In any case, only four male specimens and a single female collected at moderate elevation have been examined (most of them in worn conditions) confirming some differences in the internal and external morphology. More detailed analyses are needed to evaluate these differences.

Eacles ormondei peruviana Bouvier, 1927

Distribution: Sucumbíos, Orellana, Napo.

Eacles ormondei violacea Lemaire, 1975

Distribution: Napo, Tungurahua, Morona-Santiago.

Eacles adoxa Jordan, 1910

Distribution: Sucumbíos, Morona-Santiago.

Genus *Bathyphebia* Felder & Rogenhofer, 1874

Bathyphebia johnsoni Oiticica & Michener, 1950

Distribution: Loja.

Bathyphebia flavior Oiticica & Michener, 1950

Distribution: Napo, Morona-Santiago, Zamora Chinchipe, Loja.

Bathyphebia rufescens Oiticica & Michener, 1950

Distribution: Carchi, Pichincha, Bolívar, Cañar.

Bathyphebia eminens (Dognin, 1891)

Distribution: Napo, Tungurahua, Morona-Santiago, Zamora Chinchipe.

Genus *Citheronia* Hübner, [1819]

Citheronia hamifera Rothschild, 1907

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Citheronia guayaquila Schaus, 1927

Distribution: Manabí, Los Ríos, Loja.

Citheronia bellavista bellavista Draudt, 1930

Distribution: Esmeraldas, Pichincha, Los Ríos.

Citheronia bellavista cinerea Lemaire, 1982

Distribution: Manabí, Guayas, Cañar, Loja/El Oro.

Citheronia andina Lemaire, 1971

Distribution: Sucumbíos, Napo, Pastaza, Tungurahua, Morona-Santiago.

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Citheronia aroa Schaus, 1896

Distribution: Sucumbíos, Napo, Morona-Santiago.

Citheronia equatorialis Bouvier, 1927

Distribution: Imbabura, Pichincha, Cañar, Bolívar.

Citheronia phoronea (Cramer, 1779)

Distribution: Pichincha, Sucumbíos, Orellana, Napo.

Genus *Citheronioides* Lemaire, 1988*Citheronioides collaris* (Rothschild, 1907)

Distribution: Pichincha, Manabí, Cañar.

Genus *Procitheronia* Michener, 1949*Procitheronia fenestrata* (Rothschild, 1907)

Distribution: Sucumbíos, Napo, Morona-Santiago.

Genus *Schausiella* Bouvier, 1930*Schausiella longispina* (Rothschild, 1907)

Distribution: Sucumbíos.

Schausiella carabaya (Rothschild, 1907)

Distribution: Napo.

Schausiella subochreatea (Schaus, 1904)

Distribution: Orellana, ?Sucumbíos.

Remarks: The presence of this species in Ecuador is based on a male specimen figured by PIÑAS & MANZANO (2003: fig. 91). LEMAIRE (1988) listed this species for San Miguel (SU) but the same record was not confirmed by LEMAIRE & VENEDICTOFF (1989).

Schausiella polybia (Stoll, 1781)

Distribution: Orellana.

Remarks: PIÑAS & MANZANO (2003), in their fig. 94, depicted a male specimen of *Schausiella* identified as *arpi* (Schaus, 1892). RACHELI (2004) rectified this identification and assigned this specimen to *polybia*. Although the genitalia examination is necessary in the identification of *Schausiella* species, both specimens figured by PIÑAS & MANZANO (2003: figs., 93-94) can be assigned to *S. polybia* which confirms the presence of this species in Ecuador. Indeed, LEMAIRE (1988) listed this species for Sangay (MS) but the same record was not confirmed by LEMAIRE & VENEDICTOFF (1989).

Schausiella sp.

Distribution: Esmeraldas.

Remarks: PIÑAS & MANZANO (2003: fig. 92) figured one male from Alto Tambo (ES) which is the first record of a *Schausiella* species for western Ecuador. As pointed out by RACHELI (2004), this specimen could be assigned to *S. toulgoeti* Lemaire, 1969 but only through the genitalia examination it will be possible to confirm this identification.

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Genus *Othorene* Boisduval, 1872*Othorene hodeva* (Druce, 1904)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Othorene purpurascens (Schaus, 1905)

Distribution: Pichincha, Cañar, Loja, Sucumbíos, Orellana, Morona-Santiago.

Genus *Cicia* Oiticica, 1964*Cicia pelota* (Schaus, 1905)

Distribution: Sucumbíos, Orellana, Napo.

Genus *Syssphinx* Hübner, [1819]*Syssphinx molina* (Cramer, 1780)

Distribution: Esmeraldas, Pichincha, Los Ríos, Manabí, Orellana, Napo, Pastaza, Morona-Santiago.

Syssphinx quadrilineata occlusa (Dognin, 1916)

Distribution: Esmeraldas, Pichincha, Guayas.

Syssphinx thiaucourti (Lemaire, 1975)

Distribution: Manabí, Loja.

Syssphinx amena (Travassos, 1941)

Distribution: Sucumbíos, Napo, Morona-Santiago.

Syssphinx bidens (Rothschild, 1907)

Distribution: Sucumbíos, Napo, Tungurahua, Morona-Santiago.

Syssphinx sp. near *ocellata* (Rothschild, 1907)

Distribution: Napo.

Remarks: This taxon has been listed by RACHELI & RACHELI (2005b) for the first time for Ecuador. It differs from *S. bidens* but its identification needs confirmation.Genus *Adeloneivaia* Travassos, 1940*Adeloneivaia subangulata* (Herrich-Schäffer, [1855])

Distribution: Sucumbíos, Orellana, Napo, Tungurahua.

Adeloneivaia acuta (Schaus, 1896)

Distribution: Los Ríos, Cañar, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Adeloneivaia catoxantha (Rothschild, 1907)

Distribution: Sucumbíos, Napo, Pastaza, Morona-Santiago.

Adeloneivaia boisduvalii (Doûmet, 1859)

Distribution: Esmeraldas, Pichincha, Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

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Adeloneivaia pelias (Rothschild, 1907)

Distribution: Sucumbíos, Orellana, Napo, Morona-Santiago.

Adeloneivaia jason jason (Boisduval, 1872)

Distribution: Esmeraldas, Imbabura, Pichincha, Sucumbíos, Orellana, Napo, Pastaza, Morona-Santiago.

Adeloneivaia jason nigripunctata Lemaire, 1982

Distribution: Manabí, Cañar, Guayas, Loja.

Genus *Adelowalkeria* Travassos, 1941

Adelowalkeria eugenia (Druce, 1904)

Distribution: Orellana, Morona-Santiago.

Adelowalkeria plateada (Schaus, 1905)

Distribution: Sucumbíos, Orellana, Napo.

Adelowalkeria torresi Travassos & May, 1941

Distribution: Sucumbíos, Orellana, Napo.

Genus *Rachesa* Michener, 1949

Rachesa adusta (Rothschild, 1907)

Distribution: Napo.

Rachesa breteuili (Bouvier, 1927)

Distribution: Pichincha, Loja, Napo, Pastaza, Zamora Chinchipe.

Rachesa nisa (Druce, 1904)

Distribution: Napo, Morona-Santiago.

Rachesa reventador Lemaire, 1975

Distribution: Napo.

Genus *Citioica* Travassos & Noronha, 1965

Citioica anthonilis (Herrich-Schäffer, [1854])

Distribution: Sucumbíos, Orellana, Napo, Pastaza, Tungurahua, Morona-Santiago.

Citioica homoea (Rothschild, 1907)

Distribution: Napo, Tungurahua, Morona-Santiago.

Genus *Ptiloscola* Michener, 1949

Ptiloscola dargei Lemaire, 1971

Distribution: Cañar.

Ptiloscola descimoni Lemaire, 1971

Distribution: Esmeraldas, Pichincha.

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Ptiloscyla photophila (Rothschild, 1907)

Distribution: Sucumbbíos, Orellana, Napo, Morona-Santiago.

Ptiloscyla rorerae (Schaus, 1928)

Distribution: Manabí, Guayas, Loja.

Saturniinae

Genus *Copaxa* Walker, 1855

Copaxa decrescens Walker, 1855

Distribution: ?Esmeraldas, Pichincha, Los Ríos, Manabí, Guayas, Cañar, Sucumbbíos, Napo, Pastaza, Morona-Santiago.

Copaxa koenigi Lemaire, 1974

Distribution: Morona Santiago.

Remarks: this species was reported by LEMAIRE & VENEDICTOFF (1989). A single male labelled "Ecuador, Oriente, Morona-Santiago, Limon a Mendez km. 22,5, 1000 m, J. Haxaire & D. Herbin [leg.], 3-VIII-1988", has been examined in the collection of C. Lemaire (in MNHN).

Copaxa rufinans Schaus, 1906

Distribution: Pichincha, Cañar, El Oro.

Copaxa multifenestrata (Herrich-Schäffer, [1858])

Distribution: Pichincha, Cotopaxi, Cañar.

Copaxa satellita Walker, 1856

Distribution: Sucumbbíos, Napo, Morona Santiago.

Copaxa litensis Wolfe & Conlan, 2002

Distribution: Carchi.

Copaxa cineracea Rothschild, 1895

Distribution: Sucumbbíos, Napo.

Copaxa expandens Walker, 1855

Distribution: Napo.

Copaxa brunneocaeca Lemaire, 1982

Distribution: Morona-Santiago.

Copaxa andensis Lemaire, 1971

Distribution: Cotopaxi, Loja, Napo, Tungurahua, Morona-Santiago.

Copaxa simson Maassen, 1881

Distribution: Manabí, Cañar.

Copaxa intermediata Wolfe, 2005

Distribution: Imbabura, Cotopaxi, Azuay.

Copaxa orientalis Lemaire, 1975

Distribution: Cotopaxi, Napo,

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Copaxa bachuea Wolfe, 2005

Distribution: Napo, Morona-Santiago, ?Tungurahua.

Remarks: The female specimen depicted by PIÑAS & MANZANO (2003: 455) from the province of Tungurahua could be assigned to this species. However, comparing this female with those figured by WOLFE (2005), it seems more similar to the female of *Copaxa lunula* Wolfe & Conlan, 2003 rather than to the females of the remaining species of this group. The problem is that this latter species is a Bolivian endemism and its presence in Ecuador is very doubtful. For this reason the above mentioned female specimen depicted by PIÑAS & MANZANO (2003) is tentatively assigned to *C. bachuea* but its identification needs confirmation.

Copaxa medea (Maassen, 1890)

Distribution: ?Pichincha, Cañar, Cotopaxi, Chimborazo, Tungurahua, Azuay.

Remarks: The collecting site Mocha given by LEMAIRE & VENEDICTOFF (1989), and also by PIÑAS & MANZANO (2003) for the previous species, is probably Mochoa on the road Ambato-Riobamba which is located in Tungurahua province.

The record for Pichincha is based on the larvae found by G. Onore in this province as reported by WOLFE (2005).

Genus *Rothschildia* Grote, 1897*Rothschildia erycina erycina* (Shaw, 1769)

Distribution: Sucumbíos, Orellana, Napo, Tungurahua, Pastaza, Morona-Santiago, Zamora Chinchipe.

Rothschildia erycina nigrescens Rothschild, 1907

Distribution: Pichincha, Manabí, Cañar.

Rothschildia lebeau lebeau (Guérin-Meneville, 1868)

Distribution: Esmeraldas, Pichincha, Los Ríos, Manabí, Cotopaxi, Bolívar, Cañar.

Rothschildia lebeau inca Rothschild, 1907

Distribution: Sucumbíos, Napo, Tungurahua, Pastaza, Morona-Santiago, Zamora Chinchipe.

Rothschildia jorulloides (Dognin, 1895)

Distribution: Esmeraldas, Manabí, Los Ríos, Guayas, Cañar, Loja.

Rothschildia hesperus (Linnaeus, 1758)

Distribution: Sucumbíos, Napo, Morona-Santiago.

Rothschildia arethusa rhodina Jordan, 1911

Distribution: Sucumbíos, Napo, Morona-Santiago.

Rothschildia orizaba equatorialis (Rothschild, 1907)

Distribution: Esmeraldas, Imbabura-Carchi, Pichincha, Bolívar, Cañar, Chimborazo.

Remarks: In examining the available specimens of both *equatorialis* and *peruviana*, we had some problems for their identification. Indeed, LEMAIRE (1978) figured a male specimen of *peruviana* from Bolivia which fits the extreme variability in the shape of the translucent ocelli. The specimen figured by LEMAIRE (1978) is one of the several forms of "*peruviana*" found in eastern Ecuador. According to the Bolivian specimens examined in the collection of C. Lemaire (in MNHN), this form is common in Bolivia but it has been found scarce in eastern Ecuador. The form figured by LEMAIRE (1978) and the typical form (see the syntype figured by D'ABRERA, 1998: 100-101) have been found together

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with other forms in eastern Ecuador. The shape of the translucent ocelli cannot be considered diagnostic in the identification of this taxon.

Regarding the Ecuadorian specimens found on the western slope of the Andes (usually assigned to *equatorialis*), it has been noticed that most of them do not differ from specimens from eastern Ecuador. Indeed some western Ecuadorian specimens fit the syntype figured by D'ABRERA (1998). A single male specimen from Pichincha province possibly differs from all the other specimens examined from western Ecuador. It is larger than all the remaining specimens and it has a reddish dark ground colour, and not orange-like in the common form.

Two specimens identified as *Rothschildia orizaba* ssp. have been examined in the collection of C. Lemaire (in MNHN). One male is labelled "Ecuador, Occidente, Loja-Zaruma km. 72, 1950 m, 17-I-1975" and one female is labelled "Ecuador, Occidente, Loja, anc. Rte. Loja-Machala 9.3 k., NW Las Chinchas, 1975 m, 6-II-1983"; C. Lemaire, P. Thiaucourt, G. & N. Venedictoff.

This pair is quite different from the two forms present in western Ecuador but its identification remains uncertain.

Both *equatorialis* and *peruviana* are listed here as two different vicariant units but there is the suspect that one of the common form from eastern side is the same of that found on the western slope of the Andes. Concluding, there is a need of a revision of the arrangement given by LEMAIRE (1978) for the *orizaba* and *triloba* species-groups as also suggested by PEIGLER (in D'ABRERA, 1998) and in particular for the Andean populations of the *orizaba* species-group (sensu LEMAIRE, 1978).

Rothschildia orizaba peruviana W. Rothschild, 1907

Distribution: Sucumbíos, Napo, Tungurahua, Pastaza, Morona-Santiago.

Rothschildia aurota aurota (Cramer, 1775)

Distribution: Sucumbíos, Napo, Morona-Santiago, Zamora Chinchipe.

Rothschildia aricia aricia (Walker, 1855)

Distribution: Pichincha, Cotopaxi.

Rothschildia aricia xanthina Rothschild, 1907

Distribution: Napo, Morona-Santiago.

Additional notes on doubtful or unconfirmed records, and undescribed species

Genus *Paradaemonia*. *Paradaemonia andensis* was never recorded for Ecuador. In any case, it is possible that specimens of this species have been misidentified with those of the common *Paradaemonia platydesmia*.

Genus *Citheronia*. *Citheronia laocoon* (Cramer, 1777) has never been reported for Ecuador but specimens from Colombia (Cundinamarca dept.) and from northern Peru (Amazonas dept.) have been examined in the collection of C. Lemaire (in MHNH). For this reason, its presence in Ecuador is expected.

Genus *Schausiella*. Most of the records for the species belonging to this genus are based on figures by PIÑAS & MANZANO (2003). Given the variability in the external pattern of many species, the identification of each specimen must be confirmed through the genitalia examination. As stated above, some of the records reported by LEMAIRE (1988) were not confirmed later by LEMAIRE & VENEDICTOFF (1989). The present list of species of *Schausiella* occurring in Ecuador is still preliminary. Further studies must be conducted to have a clear view about the number of species occurring in Ecuador and their distribution in this country.

Genus *Ptiloscota*. Stefan Naumann and Ulrich Brosch (pers. comm.) informed us about some new species belonging to the genus *Ptiloscota* which will be described soon. One of these new species occurs also in Ecuador.

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Genus *Rothschildia*. *Rothschildia jacobaeae* (Walker, 1855) has been recently reported for Ecuador by WENCZEL & NAUMANN (2005). This record is based on a single male specimen labelled "Ecuador, La Merced, Jondachi, 4000 m, 18-VII-2001, leg. I. Callegari (recte Callegari)". WENCZEL & NAUMANN (2005) added also Napo province as the possible province where the collecting site is located. La Merced de Jondachi is a single locality in Napo province and not two different sites as stated in the label; it is situated at approximately 1100-1200 m. Given our skepticism regarding the presence of this species in Ecuador, Stefan Naumann (pers. comm.) informed us about another specimen from Ecuador stored in a private German collection. We have no further information about this second specimen. At present, it is impossible to confirm or to disconfirm the presence of this species in Ecuador.

Conclusion

General information and provincial records for a total of 122 taxa have been summarized in the present paper. A total of 35 Arsenurinae taxa are recorded for this country but there is the possibility that few additional taxa will be found in the future. The status of *Arsenura (archianassa) porioni* needs confirmation and perhaps it should be considered only a junior synonym of *archianassa*. The Ceratocampinae counts a total of 60 recorded taxa but some new records are expected given the discovery of new species and the incomplete information for various taxa. The 27 taxa of Saturniinae recorded for this country represent only a summary of information given the need of a revision for the *orizaba* species-group. The same recent record of *Rothschildia jacobaeae* is a further example of the scarce knowledge about the species belonging to this genus.

The third part of this update checklist is in preparation. It will cover all the species belonging to the subfamilies Oxyteninae and Cercophaninae known to occur in Ecuador. It will contain also additional information on the Hemileucinae species according to the discovery of new species and of further information reported in some articles published after the submission of our first part.

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